A STUDY TO EVALUATE THE EFFECTIVENESS OF PROGRESSIVE MUSCLE RELAXATION EXERCISE ON ANXIETY, DEPRESSION AND QUALITY OF LIFE AMONG PULMONARY ARTERIAL HYPERTENSIVE PATIENTS IN SELECTED HOSPITALS OF LUDHIANA/MOGA, PUNJAB.

A

SYNOPSIS

Submitted To

DESH BHAGAT UNIVERSITY, MANDI GOBINDGARH

In Partial Fulfilment of the Requirement for the Award of the Degree of

DOCTOR OF PHILOSOPHY

In the field of

NURSING

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DEPARTMENT OF NURSING

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SYNOPSIS FOR REGISTRATION OF TOPIC FOR PH.D. THESIS

STATEMENT OF PROBLEM	A Study to Evaluate the Effectiveness of Progressive Muscle Relaxation Exercise on Anxiety, Depression and Quality of life among Pulmonary Arterial Hypertensive patients in selected hospitals of Ludhiana/Moga, Punjab.
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DECLARATION

I hereby affirm that the work presented in the synopsis in entitled "A Study to Evaluate the Effectiveness of Progressive Muscle Relaxation Exercise on Anxiety, Depression and Quality of life among Pulmonary Arterial Hypertensive patients in selected hospitals of Ludhiana/Moga, Punjab" is bonafide and genuine research work carried out by me under the supervisor of Dr. Dr.Priyanka Chaudhary Associate Professor Faculty of Nursing, Desh Bhagat University

Mandi Gobindgarh.

Signature of the Candidate

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BRIEF RESUME OF INTENDED WORK

A. INTRODUCTION-

Pulmonary arterial hypertension (PAH) is a debilitating condition leading to progressive decline in functional capacity. As a result, PAH can lead to psychological impairment that can impact the overall disease status. The medical community has developed several screening questionnaires in order to assess depression in their patients allowing physicians to be at the forefront of recognizing clinical depression.

Depression and anxiety are the most common psychiatric conditions seen in the general medical setting, affecting millions of individuals in the United States. The treatments for depression and anxiety are multiple and have varying degrees of effectiveness. Physical activity has been shown to be associated with decreased symptoms of depression and anxiety. Physical activity has been consistently shown to be associated with improved physical health, life satisfaction, cognitive functioning, and psychological well-being. Conversely, physical inactivity appears to be associated with the development of psychological disorders. Specific studies support the use of exercise as a treatment for depression.

Progressive muscle relaxation (PMR) is a deep relaxation technique that has been effectively used to control stress and anxiety, relieve insomnia, and reduce symptoms of certain types of chronic pain. Progressive muscle relaxation is based upon the simple practice of tensing, or tightening, one muscle group at a time followed by a relaxation phase with release of the tension. Doctors have used progressive muscle relaxation in combination with standard treatments for symptom relief in a number of conditions, including headaches, cancer pain, high blood pressure, and digestive disturbances.

B. RESEARCH PROBLEM-

A Study to Evaluate the Effectiveness of Progressive Muscle Relaxation Exercise on Anxiety, Depression and Quality of life among Pulmonary Arterial Hypertensive patients in selected hospitals of Ludhiana/Moga, Punjab.

C. LITERATURE REVIEW

Yunping li et al (2015) the study is conducted on the effects of progressive muscle relaxation (PMR) on anxiety, depression, and quality of life (QOL) in patients with pulmonary arterial hypertension (PAH). One hundred and thirty Han Chinese patients with PAH were randomly assigned to a PMR group (n = 65) and a control group (n = 65). In 12-week study duration, the PMR group received hospital-based group and in-home PMR practice, while the control group received hospital-based mild group stretching and balance exercises. In conclusion, this study

suggests that PMR practice is effective in improving anxiety, depression, and the mental health components of QOL in patients with PAH.

Lea Ann Matura et. al (2014) The study is conducted on Pulmonary arterial hypertension (PAH) is a chronic illness that impairs physical function and leads to right-sided heart failure and premature death. In a cross-sectional design, participants with PAH completed the Medical Outcomes Study Short Form-36 v2 to measure generic HRQOL, the US Cambridge Pulmonary Hypertension Outcome Review to measure disease-specific HRQOL, and the Profile of Mood States to measure the psychological states. There were 149 participants, 127 women and 22 men, with a mean age of 53.5 years. The study concluded that Patients with PAH are experiencing diminished physical health and HRQOL.

MichaeZlupkoet. al (2010) A study was conducted on Pulmonary arterial hypertension (PAH) remains a debilitating and life-threatening disease despite improvements in hemodynamic, exercise capacity and survival with recent therapeutic advances. Health-related quality of life (HRQOL) has, therefore, been proposed as an important outcome for evaluating care. Relatively little, however, is known regarding HRQOL or its determinants in PAH. The Minnesota Living with Heart Failure questionnaire was recently adapted and validated for HRQOL measurement in PAH. We applied this pulmonary hypertension-specific version (MLHF-PH) to a larger population of PAH patients. Ninety-three consecutive outpatients with PAH completed the MLHF-PH. Scores were assessed for correlations with demographics, symptoms, hemodynamic and treatments. The study concluded that Patients with PAH had significantly impaired HRQOL as assessed by the disease-specific MLHF-PH.

D. NEED FOR THE STUDY

Pulmonary arterial hypertension (PAH) is a progressive and debilitating chronic illness caused by increased pulmonary vascular resistance with progressive right ventricular dysfunction. Many mechanisms can lead to the development of PAH, including idiopathic diseases, connective tissue diseases, and congenital heart diseases. At the time of diagnosis, patients with PAH are usually severely affected with impaired exercise capacity and shortness of breath due to elevated pulmonary artery pressure, increased pulmonary vascular resistance, and right heart failure . In consequence, the patients have to manage various life stressors, such as physical burdens, unclear prognosis, high cost of treatment, and often unemployment, which can have a psychological impact and may lead to the development of mental health problems such as depression and anxiety. Depression has been detected in up to 55% of patients with PAH . A recent study has shown that

anxiety and depression are frequently detected and significantly correlated with quality of life (QOL) in patients with PAH.

Approximately 24.1% of patients with pulmonary hypertension and mental health problems received psychopharmacological treatment. Although pharmacotherapy can successfully treat anxiety and depression, psychiatric medications alone or through their interaction with other drugs can produce side effects, and some patients are unwilling to take psychiatric medications. Some patients may be reluctant to take any additional drugs, perceiving that as a sign of loss of control and personal weakness in the handling of their illness. Relaxation techniques have been shown as an effective adjunctive therapy for anxiety and depression, providing patients with self-maintenance coping skills to reduce anxiety symptoms. Progressive muscle relaxation (PMR) is a systematic technique used to achieve a deep state of relaxation and has been shown to improve health-related QOL in a variety of medical and psychiatric illnesses.

During the clinical experience, the investigator observed that the focus of attention for relief of Anxiety and Depression is pharmacological aspect; a little attention is given to non-pharmacological methods. The researcher wants to investigate the effect of progressive muscle relaxation on Anxiety, Depression and Quality of life. Medicines have side effect whereas progressive muscle relaxation have no side effect.Hence the investigator want to conduct the study on to Evaluate the effectiveness of Progressive Muscle Relaxation Exercise on Anxiety, Depression and Quality of life among Pulmonary Arterial Hypertension patients in selected hospitals Ludhiana/Moga of Punjab.

E. OBJECTIVES

1. To assess the pre-test and post- test level of anxiety among pulmonary arterial hypertensive patients.

2 .To assess the pre-test and post- test level of depression among pulmonary arterial hypertensive patients.

3. To assess the pre-test and post- test level of Quality of life among pulmonary arterial hypertensive patients.

4. To evaluate the effectiveness of Progressive muscle relaxation exercise on anxiety, depression and quality of life among pulmonary arterial hypertensive patients.

5. To compare the pre-test and post- test level of anxiety, depression and quality of life among pulmonary arterial hypertensive patients.

6. To find out the association between the Progressive muscle relaxation on anxiety among pulmonary arterial hypertensive patients with their selected socio-demographic variables.

7. To find out the association between the Progressive muscle relaxation on depression among pulmonary arterial hypertensive patients with their selected socio-demographic variables.

8. To find out the association between the Progressive muscle relaxation on quality of life among pulmonary arterial hypertensive patients with their selected socio-demographic variables.

F. SCOPE- A Study to Evaluate the Effectiveness of Progressive Muscle Relaxation Exercise on Anxiety, Depression and Quality of life among Pulmonary Arterial Hypertensive patients in selected hospitals of Ludhiana/Moga, Punjab.

G. DELIMITATION OF STUDY

The study is delimited to-

1. The study is delimited to willing pulmonary arterial hypertension patients only.
2. The study is delimited to Punjab region only.

CONCEPTUAL FRAMEWORK

The conceptual framework for the study has been developed by the concepts taken from Orem's theory of self care given by "Dorothea Orem".

H. RESEARCH HYPOTHESIS

H_1 Group exposed to Progressive Muscle Relaxation will have significant reduction in Anxiety, Depression and improve quality of life among pulmonary arterial hypertensive patients as compared to those who have not exposed.

RESEARCH METHODOLOGY

RESEARCH DESIGN

An experimental (Pre test-post test control group design) research design was selected to accomplish the stated objectives for the present study. In this design, subjects have been designed randomly to the experimental or the control group. The experimental treatment is given only to those in the experimental group, and the pre-tests and post tests are those measurements of the dependent variable that are made before and after the experimental treatment are performed. All true experimental designs have subjects randomly assigned groups, have an experimental treatment introduced to some of the subjects and have the effects of the treatment observed.

1. RESEARCH APPROACH

Quantitative research approach was considered to be appropriate for present study because it aimed at to evaluate the Effectiveness of Progressive Muscle relaxation Exercise on Anxiety, Depression and Quality of life among Pulmonary Arterial Hypertensive patients in selected hospitals of Ludhiana/Moga, Punjab.

2. AREA OF STUDY

The study was conducted on Heart hospital Moga and Ludhiana, Punjab.

3. SAMPLE AND SAMPLE SIZE

Total sample for the study was 200 pulmonary arterial hypertension patients of selected hospital Punjab.

4. SAMPLING TECHNIQUES

Convenient sampling technique will be used to select the samples for the study.

5. TOOLS

Development and description of the tool

The tool used in the study has following two parts:-

PART 1: SOCIO DEMOGRAPHIC CHARACTERISTICS

This part consists of seven items for obtaining personal information i.e. Age, Gender, BMI, Religion, Education level, Economic status and living status.

PART 2: STANDARDIZED SCALE

Beck Anxiety Inventory (BAI). The scale was developed by Dr. Aaron T. Beck and Robert A. Steer in 1990, 1993**.** The Beck Anxiety Inventory is a 21 item scale that measures the severity of self reported anxiety in adults and adolescents. Each symptom is rated on a 4-point scale ranging from 0 to 3.

Beck Anxiety Inventory (BAI)

	Symptoms	Not at all	Mildly, but it didn't bother me much.	Moderately-it wasn't pleasant at times	Severely-it bothered me a lot
1.	Numbness or tingling	0	1	2	3
2.	Feeling hot	0	1	2	3
3.	Wobbliness in legs	0	1	2	3
4.	Unable to relax	0	1	2	3
5.	Fear of worst happening	0	1	2	3
6.	Dizzy or lightheaded	0	1	2	3
7.	Heart pounding/racing	0	1	2	3
8.	Unsteady	0	1	2	3
9.	Terrified or afraid	0	1	2	3
10.	Nervous	0	1	2	3
11.	Feeling of choking	0	1	2	3
12.	Hands trembling	0	1	2	3
13.	Shaky/unsteady	0	1	2	3
14.	Fear of losing control	0	1	2	3
15.	Difficulty in breathing	0	1	2	3
16.	Fear of dying	0	1	2	3

17.	Scared	0	1	2	3
18.	Indigestion	0	1	2	3
19.	Faint/lightheaded	0	1	2	3
20.	Face Flushed	0	1	2	3
21.	Hot/Cold sweats	0	1	2	3

SCORING KEY:-

Maximum score:-63

Minimum score: - 0

SEVERITY OF ANXIETY:-

0-21:-low anxiety

22-35:- moderate anxiety

36-63:-severe anxiety

Beck Depression Inventory-II (B.D.I-II). The BDI was developed in 1996 by Dr. Aaron T. Beck. The tool (BDI) measures the intensity, severity, and depth of depression in patients. BDI is composed of 21 questions or items, each with four possible responses. Each response is assigned a score ranging from 0-3, indicating the severity of the symptom.

BECK DEPRESSION INVENTORY

S.NO	ITEMS	None	Mild	Moderate	Severe
1.	Sadness	0	1	2	3
2.	Pessimism	0	1	2	3
3.	Past Failure	0	1	2	3
4.	Loss Of Pleasure	0	1	2	3
5.	Guilty Feelings	0	1	2	3
6.	Punishment Feelings	0	1	2	3
7.	Self-Dislike	0	1	2	3
8.	Self-Criticalness	0	1	2	3
9.	Suicidal thoughts or wishes	0	1	2	3

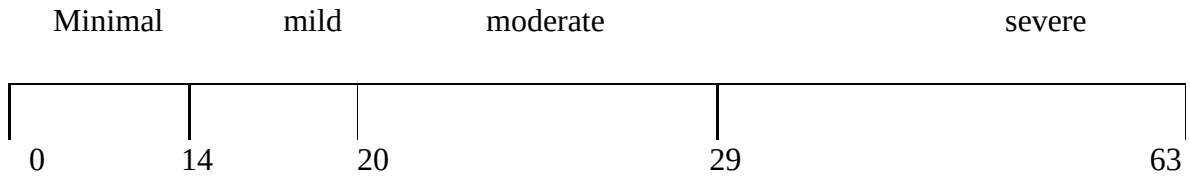
10.	Crying	0	1	2	3
11.	Agitation	0	1	2	3
12.	Loss Of Interest	0	1	2	3
13.	Indecisiveness	0	1	2	3
14.	Worthlessness	0	1	2	3
15.	Loss Of Energy	0	1	2	3
16.	Changes In Sleep Pattern	0	1	2	3
17.	Irritability	0	1	2	3
18.	Changes In Appetite	0	1	2	3
19.	Concentration Difficulty	0	1	2	3
20.	Tiredness Or Fatigue	0	1	2	3
21.	Loss Of Interest In Sex	0	1	2	3

SCORING KEY:-

Maximum score: - 63

Minimum score: - 0

Severity of depression:-



QUALITY OF LIFE

Health –related QOL was measured with the SF-36 scale, which comprises 36 items covering eight domains: Physical function (10 items), Role limitation caused by physical problems(4 items),body pain(2 items),general health perception(5 items),vitality-energy(4 items),social function(2 items),role limitations caused by emotional problems (3 items) and mental health(5 items).the scores of the QOL physical health domains(physical function, physical role, bodily pain and general health) can be summarized into a physical component summary score and the scores of mental health domains(vitality, social function, emotional role and mental health) can be summarized into a mental component summary score. Higher score indicates better QOL.

DESCRIPTION OF THE P.M.R

Session of P.M.R was carried out by using the video and instructions given by the researcher. Progressive muscle relaxation is a whole body activity that involves tensing and then relaxing each muscle group sequentially from head to feet. To do this activity, set aside ten minutes or so at home. When it's quite and're not likely to be disturbed. Wear loose clothing so that can move freely around. Can either do this exercise by lying down or sitting in a comfortable chair. But if you're setting, remember, get into proper posture. Sit upright, shoulders relaxed, small of the back pressed gently into chair, feet flat on the floor.

1. First, close eyes, and then tighten the muscle in forehead, mouth and face. Take a deep breath and count ten in mind and hold that tension for a while. Then slowly release it as take a long, slow breath out.

2. Next focus on neck and shoulders, lift shoulder, tighten the muscles and in the neck, take a deep breath in. Feel the tension as hold position. Count ten in mind and then slowly release as breath out.

3. Now focus on arms, hold them out in front of you. Keep them slightly bent and clench fists. Tighten those muscles. Count ten in mind. Keep the tension as slowly breath in, and then slowly release as breath out. Feel the difference between the tense and relaxed muscles.

4. Now tighten the muscle in stomach. Tense the muscles so that stomach is pulled back toward spine. Take deep breaths, and count 10 in your mind. Feel the tension and then slowly release it. Then move down to legs.

5. Push the balls of feet into the floor, and raise heels. Tighten the muscles in legs and feel as slowly inhale, count ten in mind and then slowly release the tension as breath out. Can repeat this Progressive muscle relaxation exercise several times if necessary. Continue to tense and relax muscles for between five and ten minutes, or until feel really relaxed.

6. METHOD OF DATA COLLECTION-

Data will be collected by investigator herself by using standardized scales.

7. PLAN FOR DATA ANALYSIS

In the present study, the collected data will be grouped and analyzed by using descriptive and inferential statistics.

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